

CLAIM AMENDMENTS

1. (original) A carbon monolith comprising a robust carbon monolith characterized by a skeleton size of at least 100 nm, and a hierarchical pore structure having macropores and mesopores.
2. (original) A carbon monolith in accordance with claim 1 wherein said carbon monolith is characterized by a skeleton size of 100 nm to 20 μm .
3. (original) A carbon monolith in accordance with claim 2 wherein said carbon monolith is characterized by a skeleton size of 200 nm to 10 μm .
4. (original) A carbon monolith in accordance with claim 3 wherein said carbon monolith is characterized by a skeleton size of 400 nm to 1 μm .
5. (original) A carbon monolith in accordance with claim 1 wherein said macropores are of a size range of 0.05 μm to 100 μm .
6. (original) A carbon monolith in accordance with claim 5 wherein said macropores are of a size range of 0.1 μm to 50 μm .
7. (original) A carbon monolith in accordance with claim 6 wherein said macropores are of a size range of 0.8 μm to 10 μm .
8. (original) A carbon monolith in accordance with claim 1 wherein said mesopores are of a size range of 18 \AA to 50 nm.
9. (original) A carbon monolith in accordance with claim 8 wherein said mesopores are of a size range of 0.5 nm to 40 nm.

10. (original) A carbon monolith in accordance with claim 9 wherein said mesopores are of a size range of 5 nm to 30 nm.
11. (original) A carbon monolith in accordance with claim 1 wherein said carbon monolith further comprises graphite.
12. (currently amended) A monolithic chromatography column comprising a robust monolithic carbon stationary phase disposed in a chromatography column support, said monolithic carbon stationary phase characterized by a skeleton size of at least 100 nm.
13. (original) A monolithic chromatography column in accordance with claim 12 wherein said robust monolithic carbon stationary phase is characterized by a skeleton size of 100 nm to 20 μm .
14. (original) A monolithic chromatography column in accordance with claim 13 wherein said robust monolithic carbon stationary phase is characterized by a skeleton size of 200 nm to 10 μm .
15. (original) A monolithic chromatography column in accordance with claim 14 wherein said robust monolithic carbon stationary phase is characterized by a skeleton size of 400 nm to 1 μm .
16. (original) A monolithic chromatography column in accordance with claim 12 wherein said monolithic carbon stationary phase is characterized by a hierarchical porous structure.
17. (original) A monolithic chromatography column in accordance with claim 16 wherein said hierarchical porous structure comprises macropores and mesopores.
18. (original) A monolithic chromatography column in accordance with claim 17 wherein said macropores are of a size range of 0.05 μm to 100 μm .

19. (original) A monolithic chromatography column in accordance with claim 18 wherein said macropores are of a size range of 0.1 μm to 50 μm .
20. (original) A monolithic chromatography column in accordance with claim 19 wherein said macropores are of a size range of 0.8 μm to 10 μm .
21. (original) A monolithic chromatography column in accordance with claim 17 wherein said mesopores are of a size range of 18 \AA to 50 nm.
22. (original) A monolithic chromatography column in accordance with claim 21 wherein said mesopores are of a size range of 0.5 nm to 40 nm.
23. (original) A monolithic chromatography column in accordance with claim 22 wherein said mesopores are of a size range of 5 nm to 30 nm.
24. (original) A monolithic chromatography column in accordance with claim 12 wherein said monolithic carbon stationary phase further comprises graphite.
25. (original) A method of preparing a robust carbon monolith comprising the steps of:
 - a. providing a carbon monolith precursor having a porosity-generating fugitive phase dispersed therein, said fugitive phase comprising mesoparticles and microparticles;
 - b. carbonizing said carbon monolith precursor to form a carbon monolith; and
 - c. removing said fugitive phase from said carbon monolith to form a robust, porous carbon monolith characterized by a skeleton size of at least 100 nm, and a hierarchical pore structure having macropores and mesopores.
26. (original) A method in accordance with claim 25 wherein said carbon monolith precursor further comprises at least one carbonizable polymer.

27. (original) A method in accordance with claim 25 wherein said porosity-generating fugitive further comprises a material that is soluble in a solvent that does not harm said porous carbon monolith.
28. (original) A method in accordance with claim 25 wherein said porosity-generating fugitive further comprises silica.
29. (original) A method in accordance with claim 25 further comprising, after said removing step, an additional step of graphitizing said porous carbon monolith.
30. (original) A method in accordance with claim 25 wherein said carbon monolith is characterized by a skeleton size of 100 nm to 20 μm .
31. (original) A method in accordance with claim 30 wherein said carbon monolith is characterized by a skeleton size of 200 nm to 10 μm .
32. (original) A method in accordance with claim 31 wherein said carbon monolith is characterized by a skeleton size of 400 nm to 1 μm .
33. (original) A method in accordance with claim 25 wherein said macropores are of a size range of 0.05 μm to 100 μm .
34. (original) A method in accordance with claim 33 wherein said macropores are of a size range of 0.1 μm to 50 μm .
35. (original) A method in accordance with claim 34 wherein said macropores are of a size range of 0.8 μm to 10 μm .
36. (original) A method in accordance with claim 25 wherein said mesopores are of a size range of 18 \AA to 50 nm.

37. (original) A method in accordance with claim 36 wherein said mesopores are of a size range of 0.5 nm to 40 nm.

38. (original) A method in accordance with claim 37 wherein said mesopores are of a size range of 5 nm to 30 nm.

39. (original) A method of preparing a robust carbon monolith comprising the steps of:

- providing a carbon monolith precursor having a particulate porosity-generating fugitive phase dispersed therein, said fugitive phase comprising mesoparticles and microparticles; and
- heating said carbon monolith precursor to carbonize said carbon monolith precursor, and to remove said fugitive phase from said carbon monolith, to form a robust, porous carbon monolith characterized by a skeleton size of at least 100 nm, and a hierarchical pore structure having macropores and mesopores.

40. (original) A method in accordance with claim 39 wherein said carbon monolith precursor further comprises at least one carbonizable polymer.

41. (original) A method in accordance with claim 39 wherein said porosity-generating fugitive further comprises a material that is thermally removable at a temperature that does not decompose said porous carbon monolith.

42. (original) A method in accordance with claim 39 wherein said porosity-generating fugitive phase further comprises at least one material selected from the group consisting of surfactants and low-charring polymers.

43. (original) A method in accordance with claim 39 further comprising, after said removing step, an additional step of graphitizing said porous carbon monolith.

44. (original) A method in accordance with claim 39 wherein said carbon monolith is characterized by a skeleton size of 100 nm to 20 μm .

45. (original) A method in accordance with claim 44 wherein said carbon monolith is characterized by a skeleton size of 200 nm to 10 μm .

46. (original) A method in accordance with claim 45 wherein said carbon monolith is characterized by a skeleton size of 400 nm to 1 μm .

47. (original) A method in accordance with claim 39 wherein said macropores are of a size range of 0.05 μm to 100 μm .

48. (original) A method in accordance with claim 47 wherein said macropores are of a size range of 0.1 μm to 50 μm .

49. (original) A method in accordance with claim 48 wherein said macropores are of a size range of 0.8 μm to 10 μm .

50. (original) A method in accordance with claim 39 wherein said mesopores are of a size range of 18 \AA to 50 nm.

51. (original) A method in accordance with claim 50 wherein said mesopores are of a size range of 0.5 nm to 40 nm.

52. (original) A method in accordance with claim 51 wherein said mesopores are of a size range of 5 nm to 30 nm.

53. - 81. (canceled)